

Neisseria meningitidis Isolated From Case Of Acute Conjunctivitis

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The identification of the etiological agent in conjunctivitis more often confronts hospital or clinic laboratories than a public health laboratory, but it is a matter of public health interest. The principle involved here applies whenever a Neisseria organism of any kind, not only gonococcus, is suspected. The implication is that reliance on simple microscopic procedure and the acceptance of misleading shortcuts can lead to major error.

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A CASE of uncomplicated conjunctivitis occurring in April 1953 was found to be due to *Neisseria meningitidis* as the result of bacteriological studies made by the San Benito County Health Department in California.

Smear preparations alone are frequently employed for recognizing the gonococcus from genitourinary tract secretions. Ordinarily, this procedure would present no problem. It entails, however, the risk of ascribing an incorrect etiological agent to the disease process and of

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incorrect clinical and epidemiological interpretation, particularly in the case of extragenital infections.

Gram-negative intracellular diplococci were demonstrated on smear preparations of the discharge from acute, purulent conjunctivitis of one day's duration of the right eye in a 4-year-old boy. Cultures were requested prior to treatment and were submitted. The patient responded well to the parenteral administration of 900,000 units of penicillin procaine G followed by 300,000 units per day for 6 days. Symptoms were absent at 48 hours.

The discharge was plated on chocolate agar with the addition of Difco's Bacto supplement A as recommended for 24-hour gonococcus cultures (1). These plates were incubated at 37° C. in a candle jar. Within 24 hours, numerous gray, opaque colonies with an entire edge were present. They were oxidase-positive and showed morphology typical of *Neisseria* by Gram stain. By biochemical test the culture was identified as the meningococcus. Serologically, the organism was placed in group 2.

Since this case was at first considered to be gonorrhoea, considerable investigation was made of family and other contacts. Investigative work could be more rationally directed if cases of extragenitourinary *Neisserian* infections were first proved bacteriologically. Bacteriological proof of such infections would avoid also the social, medical, and legal implications usually associated with gonococcal infections in children. It should be noted that Thygeson (2) calls attention to the clinical similarity of inflammation of the eye by the gonococcus and the meningococcus and to the resultant need for bacteriological studies to establish an etiological diagnosis.

REFERENCES

- (1) Difco manual. Ed. S. Detroit, Mich., Difco Laboratories, 1948, pp. 87-89.
- (2) Thygeson, P.: Diseases of the conjunctiva. In *The eye and its diseases*, edited by C. Berens. Ed. 2. Philadelphia, W. B. Saunders and Company, 1949, p. 368.